

Appln No. 10/045,663

Amdt date November 21, 2003

Reply to Office action of October 08, 2003

REMARKS/ARGUMENTS

Claims 1-21 are pending. Claims 7, 8, and 10 are written in an independent form and claim 19 is amended to correct an informality without further limiting the claims or affecting patentability. New claim 21 is added.

The disclosure is objected to because on page 14, line 13, SVM coil is designated by reference no. 16, while FIG. 1 indicates reference no. 22 as the SVM coil. The Specification is amended to change the reference no. 16 to 22. In view of the above amendment, it is respectfully requested that the above-mentioned objections be withdrawn.

Claims 1-20 are rejected under 35 U.S.C § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, Examiner asserts that the term "one of the grid electrodes including a plurality of focusing electrodes," in claims 1 and 18 results "in a disagreement in numbers because how one electrode could be plurality of electrodes at the same time, this it is illogical." (Office action, page 2, fifth paragraph). Applicants respectfully disagree. It is the grid electrode (G4 in FIGs. 1-5) that includes a plurality of focusing electrodes, meaning that the grid electrodes include a plurality of focusing electrodes (G4-1 & G4-2 in FIGs. 1-5). Consequently, it is respectfully requested that the above-mentioned rejection be withdrawn.

Claims 7-8 and 10 are indicated to be allowable if rewritten to overcome the formal rejections and to include all

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of the limitations of the base claim and any intervening claims. Claims 7-8 and 10 are written in an independent form including all of the limitation of their base claim and any intervening claims. Consequently allowance of claims 7-8 and 10 is respectfully requested.

Claims 1-3, 5-6, 9, 11-20 are rejected under 35 U.S.C § 102(e) as being fully anticipated by Taguchi et al (US 6,617,777); and claim 4 is rejected under 35 U.S.C § 103(a) as being obvious over Taguchi. Applicants submit that all of the claims currently pending in this application are patentably distinguishable over the cited references, and reconsideration and allowance of this application are respectfully requested.

Independent claims 1, 18 and 21 include, among other limitations, "a shield electrode mounted covering the at least one gap of the focusing electrodes and extending a predetermined distance over the focusing electrodes."

Taguchi does not teach or suggest the above limitation. Taguchi discloses an electron gun including a G4 electrode 10. "The G4 electrode 10 is separated into a first tubular electrode 13 and a second tubular electrode 14, and a coil member 12 is provided in a space between the tubular electrodes 13 and 14. The electrodes 13 and 14 are connected electrically with each other by the coil member 12." (Col. 3, lines 52-56, emphasis added). This coil member is not a shield electrode.

The coil member of Taguchi is composed of a metal wire (col, 4, line 5-6) and "the end portions of the coil member 12 are pressed to the support members 16 and 17 by the spring force of the coil member 12 at the time of assembling the G4 electrode

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10." (Col. 4, lines 61-64). Therefore, it is clear that the coil member of Taguchi is not the same as the shield electrode of the present invention, examples of which are depicted in FIGs. 2-5.

Additionally, the coil member of Taguchi does not extend "a predetermined distance over the focusing electrodes," as required by the independent claims 1, 18 and 21. Taguchi emphasizes that the "The coil member 12 before being assembled in an electron gun is determined to be longer than a mutual distance between the support member 16 for the first tubular electrode 13 and the support member 17 for the second tubular electrode 14. The "mutual distance" denotes a distance between an end of the support member 16 facing the second tubular electrode 14 and an end of the support member 17 facing the first tubular electrode 13. In this manner, the end portions of the coil member 12 are pressed to the support members 16 and 17 by the spring force of the coil member 12 at the time of assembling the G4 electrode 10. This will restrain the coil member 12 from moving in the axial direction, and fix the coil member 12 with respect to the support members 16 and 17." See col. 4, lines 53-67, emphasis added.

It is clear from the above description that the coil member 12 has a "thicker" diameter than the diameter of tubular electrodes 13 and 14, but does not extend "a predetermined distance over the focusing electrodes," as required by the independent claims 1, 18 and 21. As a result, the independent claims 1, 18 and 21 are not anticipated by Taguchi.

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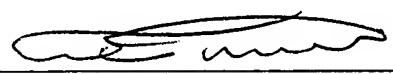
Furthermore, the coil member of Taguchi is not "for shielding an external electrical field from entering into the at least one gap," as required by the independent claim 21.

In short, the independent claims 1, 18 and 21 define a novel and unobvious invention over the cited references. The remaining dependent claims 2-6, 9, 11-17 and 19-20 are dependent from claims 1 and 18, respectively and therefore include all the limitations of their respective independent claims and additional limitations therein. Accordingly, these claims are also allowable over the cited references, as being dependent from allowable independent claims and for the additional limitations they include therein.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance are respectfully requested.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By


Raymond R. Tabandeh
Reg. No. 43,945
626/795-9900

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